

AMENDMENTS TO THE CLAIMS

Please amend Claims 1, 3, 4, 6-17 and 20 as follows.

LISTING OF CLAIMS

1. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

antenna means provided in the base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining whether there are at least two transmitting terminal stations of the plurality of terminal stations in response to signal receptions by the antenna means, at least one of the transmitting terminal stations being a hidden terminal station;

power notifying means provided in the base station for notifying the at least one of the ~~determined~~ transmitting terminal stations to increase a transmitting power when it is determined by the terminal station identifier means that there are at least two transmitting terminal stations

the antenna means having a plurality of antenna elements;

monitor means provided in the base station for monitoring a received power of each antenna element;

wherein the terminal station identifier means determines whether there are at least two transmitting terminal stations based on comparisons of the received power of each antenna element monitored by the monitor means with a reference power.

2. (cancelled)

3. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in ~~[[a]]~~ the base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining whether there are at least two transmitting terminal stations of the plurality of terminal stations in response to signal receptions by the plurality of antenna elements, at least one of the transmitting terminal stations being a hidden terminal station; and

sector notifying means provided in the base station for notifying the at least one of the ~~determined~~ transmitting terminal stations of sector information about the location of the transmitting terminal stations when it is determined by the terminal station identifier means that there are at least two transmitting terminal stations.

4. (currently amended) A CSMA wireless LAN according to claim 3, wherein:

the sector notifying means notifies a number indicative of a sector of the location of terminal stations as the sector location of transmitting the transmitting terminal stations.

5. (original) A CSMA wireless LAN according to claim 3, wherein:

the sector notifying means notifies an angle between a maximum irradiation orientation of the sector of the location of the transmitting terminal stations and a reference method for the sector location of transmitting terminal stations.

6. (currently amended) A CSMA wireless LAN according to claim 3 further comprising:

monitor means provided in the base station for monitoring a received power of each antenna element,

wherein the terminal station identifier means determines whether there are at least two transmitting terminal stations corresponding to comparisons of the received power of the plurality of antenna elements monitored by the monitor means with a reference power.

7. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in the base station for receiving signals from the plurality of terminal stations;

monitor means provided in the base station for monitoring a received power of each antenna element;

terminal station identifier means provided in the base station for determining whether there are at least two transmitting terminal stations in response to a signal reception by each antenna element, at least one of the transmitting terminal stations being a hidden terminal station; and

sector notifying means provided in the base station for notifying the at least one of transmitting terminal stations of sector information about the location of the transmitting terminal stations and received power from the transmitting terminal stations by the monitor means when it is determined by the terminal station identifier means that there are at least two transmitting terminal stations.

8. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in [[a]] the base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining there are other transmitting terminal stations at the time of transmission from one terminal station in response to receptions by the plurality of antenna elements, at least one of the transmitting terminal stations being a hidden terminal station;

sector notifying means provided in the base station for notifying the [[other]] at least one transmitting terminal stations station of the sector location of the

other transmitting terminal stations when it is determined by the terminal station identifier means that there are other transmitting terminal stations.

9. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in the base station for receiving signals from the plurality of terminal stations;

monitor means provided in the base station for monitoring a received power of each antenna element;

terminal station identifier means provided in the base station for determining there are other transmitting terminal stations at the time of transmission from one terminal station in response to the reception by the plurality of antenna elements at least one of the transmitting terminal stations being a hidden station;

notifying means provided in the base station for notifying the other transmitting terminal stations of the sector location of the other transmitting terminal stations and the received power from the other transmitting terminal stations by the monitor means when it is determined by the terminal station identifier means that there are other transmitting terminal stations.

10. (currently amended) A CSMA wireless LAN according to claim 1 ~~further~~ comprising wherein:

[[a]] at least one terminal station ~~including~~ includes transmitting power means capable of increasing the transmitting power when notified to increase power from the power notifying means.

11. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in a base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining whether there are at least two transmitting terminal stations in response to signal receptions by the plurality of antenna elements, at least one of the transmitting terminal stations being a hidden terminal station; and

sector notifying means provided in the base station for notifying the at least one of the ~~determined~~ transmitting terminal stations of sector information about the location of the transmitting terminal stations when it is determined by the terminal station identifier means that there are at least two transmitting terminal stations;

[[a]] each terminal station ~~having~~ has sector information notified from the sector notifying means for calculating an orientation of [[a]] the hidden terminal station in response to the notified sector information in order to set a directivity to the calculated direction of the hidden terminal station.

12. (currently amended) A CSMA wireless LAN according to claim 11, wherein:

[[the]] at least one terminal station has a plurality of antenna elements for forming a transmission beam directed toward the calculated direction of the hidden terminal station, each antenna element outputting a non-directional radio wave beam.

13. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

a plurality of antenna elements forming a communication area comprised of a plurality of sectors, the plurality of antenna elements being provided in the base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining whether there are at least two transmitting terminal stations in response to signal receptions by the plurality of antenna elements, at least one of the transmitting terminal stations being a hidden terminal station; and

sector notifying means provided in the base station for notifying the at least one of the ~~determined~~ transmitting terminal stations of sector information about the location of the transmitting terminal stations when it is determined by the terminal station identifier means that there are at least two transmitting terminal stations;

[[a]] each terminal station having the sector information notified from the sector notifying means for calculating an orientation of [[a]] the hidden terminal station in response to the notified sector information, the terminal station further having a

directional sensor for detecting the orientation for compensating for the calculated orientation in response to the orientation detected by the sensor in order to set the directivity to the compensated direction.

14. (currently amended) ~~A CSMA wireless LAN according to claim 7 further comprising:~~ A CSMA wireless LAN comprising:

a plurality of antenna elements forming a communication area comprised of a plurality of sectors;

monitor means for monitoring a received power of each antenna element;

terminal station identifier means for determining whether there are at least two terminal stations in response to a signal reception by each antenna element; and

sector notifying means for notifying at least one of transmitting terminal stations of sector information about the location of the terminal stations and received power from the transmitting terminal stations by the monitor means when it is determined by the terminal station identifier means that there are at least two terminal stations;

a terminal station having the sector information notified from the sector notifying means for calculating an orientation of a hidden terminal station in response to the notified sector information, and the terminal station further having a plurality of antenna elements for forming a transmission beam directed to the calculated direction,

wherein the transmission beam is a radio wave output omnidirectionally and a gain of the transmission beam is calculated in response to a notified received power.

15. (currently amended) A CSMA wireless LAN according to claim 9 further comprising wherein:

[[a]] at least one terminal station ~~having~~ has sector information notified from the sector notifying means for calculating an orientation of [[a]] the base station having the sector notifying means in response to the notified sector information in order to set a directivity to the calculated direction of the base station.

16. (currently amended) A CSMA wireless LAN according to claim 9 further comprising:

[[a]] at least one terminal station ~~having~~ has sector information notified from the sector notifying means for calculating an orientation of [[a]] the base station having the sector notifying means in response to the notified sector information, and the at least one terminal station further having a plurality of antenna elements for forming a transmission beam directed to the calculated direction,

wherein the transmission beam radio wave is output omnidirectionally, and a gain of the transmission beam being calculated in response to the notified received power.

17. (currently amended) A CSMA wireless LAN comprising:

a base station;

a plurality of terminal stations;

antenna means provided in the base station for receiving signals from the plurality of terminal stations;

terminal station identifier means provided in the base station for determining, during a reception of signal transmission from a first transmitting terminal station, whether there is a second transmitting terminal station in response to receptions of the antenna means at least one of the transmitting terminal stations being a hidden terminal station; and

notifying means provided in the base station for notifying, when it is determined by the terminal station identifier means that there is the second transmitting terminal station, the at least one of the ~~first and the second~~ transmitting terminal stations of ~~[[the]]~~ information ~~but the~~ about communication ~~[[area]]~~ areas such that the communication area of the at least one of the ~~first and the second~~ transmitting terminal stations may cover the communication area of the other transmitting terminal station.

18. (original) A CSMA wireless LAN according to claim 17 further comprising:
a terminal station for altering the communication area in response to the information.

19. (original) A CSMA wireless LAN according to claim 17 further comprising:
a terminal station having information notified from the notifying means and having a directional sensor for altering the communication area in response to the direction detected by the sensor and the notified information.

20. (currently amended) A CSMA wireless LAN according to Claim 8 ~~further~~ comprising wherein:

[[a]] at least one terminal station ~~having~~ has sector information notified from the sector notifying means for calculating an orientation of [[a]] the hidden terminal station in response to the notified sector information in order to set a directivity to the calculated direction of the hidden terminal station.